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V 2666

A method and an apparatus for the transferring of a flexible material web

Description

FIELD OF THE INVENTION

The invention relates to a method for the transferring of a flexible material web, in particular a paper or cardboard web, from an upstream section to at least one downstream section of a machine serving the manufacture and/or treatment of the material web, in particular a paper machine, in which the material web is split into an edge strip extending in the web running direction, an adjoining transfer strip and the remaining web adjoining this transfer strip by means of two separation elements. It further relates to an apparatus in accordance with the preamble of claim 26.

BACKGROUND OF THE INVENTION

In a method of the kind initially mentioned known from WO 98/33974, a small strip (transfer strip) is cut out of the paper web at the end of the drying part for the transferring of the paper or cardboard web, etc., from the end of the drying part of a paper machine to downstream machine portions or sections such as the calender, winding apparatus, etc. While

the remaining, adjoining sections of the web are guided straight into a pulper or waste dissolver, the strip is transferred into the downstream machine sections by aids such as rope guides, transfer belts, etc.

However, this now results in a relatively unstable running of the strip through the downstream machine sections, which can result in time-consuming and expensive web breaks.

If the transfer strip is formed from the edge strip, the risk is given that its run is impaired by the air movements in the support region, e.g. in the machine section of a winding apparatus.

SUMMARY OF THE INVENTION

It is the aim of the invention to provide a method and an apparatus of the kind initially mentioned in which the above disadvantages are eliminated and the fastest and safest transfer of the material web possible is ensured in a simple and reliable manner. Furthermore, the safest possible separation of the transfer strip from the remaining material web and the most stable running possible of the separated transfer strip up to the machine element at the end of the transfer distance should be ensured.

This object is satisfied in accordance with the invention with respect to the method in that the edge strip is deflected to the side and away from the transfer strip and simultaneously tautened.

A fast and safe transfer of the material web is ensured in a simple and reliable manner on the basis of this design. An extremely stable running of

the transfer strip over the whole transfer distance is ensured thereby. It is also prevented that the edge strip runs along with the transfer strip during the transfer procedure, which had previously resulted in breaks. The edge strip can in particular be led into a pulper or waste container.

The deflection of the edge strip preferably takes place by means of at least one air jet.

In accordance with an expedient embodiment of the method of the invention, first the separation element disposed closest to the relevant web edge is activated in order to produce the edge strip and, subsequently, with the edge strip already tautened and deflected, the other separation element is activated in order to produce the transfer strip.

After a transfer of the transfer strip to at least one downstream machine section, the separation element further removed from the relevant web edge can be moved to the opposite web edge to separate the remaining web. The separation element disposed most closely to the relevant web edge can accordingly be moved to the relevant web edge to separate the edge strip.

In a preferred embodiment of the method of the invention, the transfer strip is first produced at a smaller spacing to the relevant web edge and the spacing to the web edge is subsequently enlarged by an appropriate movement of the separation elements in a transverse direction, with the maximum spacing of the transfer strip to the relevant web edge preferably being smaller than its spacing to the opposite web edge. The transfer strip can accordingly be correspondingly positioned with respect to a

downstream machine section by a movement of the separation elements in a transverse direction. The positioning of the transfer strip can in particular take place such that this is ultimately taken up in its overall width in the relevant downstream machine section. It can thus be ensured in a simple and reliable manner that, for example, the transfer strip is gripped in its overall width by a respective roll nip, e.g. a winding nip or the like.

There is accordingly in particular the possibility that the transfer strip is first produced at a smaller spacing to the relevant web edge for its transfer to at least a first machine section and is subsequently enlarged by an appropriate movement of the separation elements in a transverse direction for its transfer into at least one further machine section.

The respectively desired width of the transfer strip can also be set by an appropriate movement of the separation elements in a transverse direction.

A separation element working in a non-contact manner, in particular a high pressure water jet separation element or a laser beam separation element or a mechanical cutting element, in particular a knife element or a circular knife element, is in each case expediently used as the separation element.

When separation elements working in a non-contact manner are used in a paper machine, it is of advantage if the separating procedure takes place at the last dryer cylinder. If mechanically working cutting elements are

used as the separation elements, then the separating procedure preferably takes place in a non-supported run of the material web.

The material web is expediently led into the pulper or waste container at the start of the separating procedure.

In a preferred embodiment of the method of the invention, it is provided that both separation elements are applied within the material web and that the separation is begun accordingly within this material web. Alternatively to this, however, it is also possible to activate at least one separation element outside the material web.

The edge strip and the remaining web are preferably led into the pulper or waster container up to the widening.

The transfer strip can be transferred to the downstream machine section via at least one auxiliary transfer device, in particular a rope guide, a transfer belt, an air guide device and/or the like.

The edge strip is expediently produced with a width which is in a range from around 50 mm to around 300 mm and preferably in a range from around 50 mm to around 250 mm.

The transfer strip is expediently produced with a width which is in a range from around 50 mm to around 400 mm and preferably in a range from around 50 mm to around 200 mm.

In accordance with a preferred practical embodiment, the transfer strip is produced such that its edge disposed most closely to the relevant web edge has a spacing to the support edge or to the rope guides which is larger than around 150 mm, with the spacing in particular being in a range from around 150 mm to around 1,000 mm.

The apparatus of the invention is accordingly characterized in that means are provided in order to deflect the edge strip to the side of and away from the transfer strip and to simultaneously tauten it.

Preferred embodiments of the apparatus of the invention are set forth in the dependent claims.

The method of the invention and the apparatus of the invention can, for example, be used for a transfer from the drying part to a winding apparatus, from the drying part to a calender and via this to a winding apparatus, from the drying part to a coating unit, size press and/or the like, or, for example, also for a transfer starting from a drying part section or a pre-drying part. The transfer can in particular take place in the edge region, e.g. at the operator side of the paper machine. The transfer strip is advantageously cut from a region of the web further removed from the support, with it being of advantage, however, if the spacing is not too large, so that accessibility for waste elimination is given in the event of a break.

It is possible by an appropriate movement of the separation elements to guide the transfer strip at an optimum spacing to the web edge in every machine section. If, for example, a transfer takes place from the drying

part via an online calender to a winding apparatus, then the transfer strip can first be cut out at a smaller spacing to the web edge during the transfer via the calender, since the transfer strip can be guided via the calender for example with the aid of transfer ropes, etc. In the next step, the spacing of the transfer strip to the web edge can then be enlarged by an appropriate movement of the separation element pair in order to achieve optimum relationships in particular in the region of the winding nip at the winding apparatus. The running reliability of the transfer strip is improved thereby. It is important here that the transfer strip is taken up by the winding nip at least at its whole width.

The invention can also be used particularly advantageously in particular in such an operating state in which a reel already partly wound with paper is provided instead of an empty reel in a winding apparatus. This situation is found, for example, in the event of a paper web break. To ensure that, for a reliable transfer, the full width of the transfer strip is taken up by the winding nip formed by the pope reel and the paper layers of the partly wound reel, the transfer strip must be brought into the appropriate position, which is possible in a simple and reliable manner in accordance with the invention by an appropriate movement of the separation element pair. The respective position is dependent on the paper format, that is the width of the paper web produced. This is in turn dependent on the kind of paper produced and the respective customer wishes.

The invention is explained in more detail in the following by means of embodiments with reference to the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a purely schematic part representation of an apparatus for the transfer of a paper or cardboard web from the last drying cylinder to a calender and via this to a winding apparatus, with the transfer strip being guided up to the winding apparatus and a change of reel taking place, that is the web is transferred to an empty reel; and

Fig. 2 shows a representation comparable to Fig. 1, with, however, a web break being present and the paper or cardboard web being accordingly transferred to an already partly wound reel.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The apparatus illustrated in the two Figs. 1 and 2 serves for the transfer of a flexible material web, here for example a paper or cardboard web 10, from an upstream machine section, here for example a drying part 12, to at least one downstream section, here for example a calender 14 and a following winding apparatus 16, of a machine serving the manufacture and/or treatment of the material web, that is in the present case a paper machine 18.

The material web 10 is split by means of two separation elements 20, 22 into an edge strip 24 extending in the web running direction L, an adjoining transfer strip 26 and the remaining web 28 adjoining this transfer strip 26.

As can be seen from the two Figs. 1 and 2, the edge strip 24 is deflected to the side of and away from the transfer strip 26, with this edge strip 24 simultaneously being tautened, which can be done, for example, by means of an air jet. This edge strip 24 is then guided into a waste container or pulper 30.

The separation element 20 disposed most closely to the relevant web edge 32 is preferably activated first in order to produce the edge strip 24, and subsequently the other separation element 22 is activated – with the edge strip 30 already tautened and deflected – in order to produce the transfer strip 26.

After a transfer of the transfer strip 26 to at least one downstream machine section 14, 16, the separation element 22 further removed from the relevant web edge 32 is moved to the opposite web edge 34 in order to separate the remaining web 28.

After a transfer of the transfer strip 26 to at least one downstream machine section 14, 16, the separation element 20 disposed most closely to the relevant web edge 32 is moved to the relevant web edge 32 in order to separate the edge strip 24.

At least at the start of the transfer procedure, the transfer strip 26 is produced such that its edge 36 disposed most closely to the relevant web edge 32 has a smaller spacing A1 to the relevant web edge 32 and accordingly a smaller spacing B1 to the support edge 40.

In the embodiment shown in Fig. 1, in which the material web 10 is ultimately transferred to an empty reel 38 of the winding apparatus 16, this smaller spacing of the transfer strip 26 to the web edge 32 or the support edge 40 is preferably maintained.

On the other hand, the transfer strip 26 is first produced (cf. Fig. 1) at a smaller spacing A1 to the relevant web edge 32 or at a smaller spacing B1 to the support edge 40 for the transfer of the material web 10 to an already partly wound reel 38' (see Fig. 2) and the spacing to the web edge 32 or to the support edge 40 subsequently enlarged to, for example, a value A2 or B2 respectively, by an appropriate movement of the separation elements 20, 22 in a transverse direction, with the greater distance A2 of the transfer strip 26 to the web edge 32 also being even smaller than its spacing to the opposite web edge 34.

The transfer strip 26 can thus be positioned in the desired manner by a movement of the separation elements 20, 22 in a transverse direction with respect, for example, to the winding nip 42 of the winding apparatus 16 between the reel 38 and a pope reel 39, with the transfer strip 26 in particular being positioned such that this is ultimately taken up in its total width in the relevant downstream machine section, here in the winding apparatus 16.

A separation element working in a non-contact manner, in particular a water jet or laser beam separation element, or a mechanical cutting element, in particular a knife or circular knife element, can for example be used a the separation element 20, 22. If separation elements 20, 22 working in a non-contact manner are used, then the separating procedure

expediently takes place at the last drying cylinder 44 of the drying part 12. If mechanically working cutting elements are used as the separation elements 20, 22, then the separating procedure expediently takes place in a non-supported run of the material web 10.

The material web 10 is guided into the pulper 30 prior to the start of the separating procedure. It is scraped off the surface of the drying cylinder 44 by a scraper (not shown). The edge strip 24 and the remaining web 28 are also guided into the pulper 30 up to the widening.

The edge strip 24 can be produced with a width, for example, which is in a range from around 50 mm to around 300 mm and preferably in a range from around 50 mm to around 250 mm. The transfer strip is produced with a width, for example, which is in a range from around 50 mm to around 400 mm and preferably in a range from around 50 mm to around 200 mm.

The transfer strip 26 is expediently produced such that its edge 36 disposed most closely to the web edge 32 has a spacing B1, B2 to the support edge 40 which is in a range from around 150 mm to around 1,000 mm.

In a, for example, direct transfer of the material web 10 from the drying part 12 to the winding or roll apparatus 16, the following method steps can, for example, be provided:

- positioning of the separation elements 20, 22 such that the whole width of the transfer strip 26 is taken up by the nip 42 at the end of the relevant downstream machine section 16;

- activation of the separation element 20 disposed most closely to the web edge 32 for the cutting of an edge strip 24;

- tautening of the edge strip 24;

- deflection of the edge strip 24 outwardly away from the separated web;

- activation of the second separation element 22 for the cutting of a transfer strip 26;

- transfer of the transfer strip 26 into auxiliary transfer units and from there to the next machine section;

- movement of the second separation element 22 to the opposite edge 34 of the material web 10 and cutting through of the remaining web 28;

- movement of the first separation element 20 to the web edge 32 and cutting through of the edge strip 24;

- deactivation of the cutting function of the two separation elements 20, 22;

- movement of the two separation elements 20, 22 into the respective starting position.

In particular with a transfer procedure of the material web 10 from the drying part 12 via an online calender 14 (cf. the two Figs. 1 and 2) to the winding or roll apparatus 16, the following method steps are possible, for example:

- the two separation elements 20, 22 are located in the respective separating position;

- activation of the separation element 20 disposed most closely to the web edge 32 for the cutting of an edge strip 24;

- tautening of the edge strip 24;

- deflection of the edge strip 24 outwardly away from the separated web;

- activation of the second separation element 22 for the cutting of a transfer strip 26;

- transfer of the transfer strip 26 in auxiliary transfer devices and from there to or via the next machine section 14 up to a roll nip 46 ("pull stack") for the clamping and tautening of the transfer strip 26, with this "pull stack" being arranged here between two machine sections 14, 16;

- displacement of the transfer strip 26 to another width position matched to the second machine section 16 by movement of the two separation elements 20, 22 into the new width position (cf. in particular Fig. 2);

- optimization of the width of the transfer strip 26 by an appropriate changing of the spacing between the two separation elements 20, 22;

- transfer of the transfer strip 26 in auxiliary transfer devices and from there to the next but one machine section;

- movement of the second separation element 22 to the opposite web edge 28 and cutting through of the remaining web 28;

- movement of the first separation element 20 to the adjacent web edge 32 and cutting through of the edge strip 24;

- deactivation of the cutting function of the two separation elements 20, 22;

- movement of the two separation elements into the respective starting position (e.g. separation position).

The two separation elements 20, 22 are controlled by an electronic control 48.

Reference numeral list

10	material web, paper or cardboard web
12	upstream machine section, drying part
14	downstream machine section, calender
16	downstream machine section, winding apparatus
18	paper machine
20	first separation element
22	second separation element
24	edge strip
26	transfer strip
28	remaining web
30	pulper
32	web edge
34	opposite web edge
36	edge
38	empty reel
38'	partly wound reel
39	pope reel
40	support edge
42	winding nip, nip
44	last drying cylinder
46	roll nip
48	electronic control
A1	spacing
B1	spacing
A2	spacing
B2	spacing

Claims

1. A method for the transferring of a flexible material web (10), in particular of a paper or cardboard web, from an upstream section (12) to at least one downstream section (14, 16) of a machine, in particular a paper machine, serving for the manufacture and/or treatment of the material web (10), in which the material web (10) is split by means of two separation elements (20, 22) into an edge strip (24) extending in the web running direction (L), an adjoining transfer strip (26) and the remaining web (28) adjoining this transfer strip (26), characterized in that the edge strip (24) is deflected to the side ofand away from the transfer strip (26) and simultaneously tautened.

2. A method in accordance with claim 1, characterized in that the edge strip (24) is deflected by means of at least one air jet.

3. A method in accordance with claim 1 or claim 2, characterized in that the edge strip is guided into a pulper (30) or waste container.

4. A method in accordance with one of the preceding claims, characterized in that the separation element (20) disposed most closely to the relevant web edge (32) is activated first in order to produce the edge strip (24), and, subsequently, the other separation

element (22) is activated – with the edge strip (30) already tautened and deflected – to produce the transfer strip (26).

5. A method in accordance with one of the preceding claims, characterized in that after a transfer of the transfer strip (26) to at least one downstream machine section (14, 16), the separation element (22) further removed from the relevant web edge (32) is moved to the opposite web edge (34) to separate the remaining web (28).

6. A method in accordance with one of the preceding claims, characterized in that after a transfer of the transfer strip (26) to at least one downstream machine section (14, 16), the separation element (20) disposed most closely to the relevant web edge (32) is moved to the relevant web edge (32) to separate the edge web (24).

7. A method in accordance with one of the preceding claims, characterized in that the transfer strip (26) is produced in the region of the relevant web edge (32) at least at the start of the transfer procedure.

8. A method in accordance with one of the preceding claims, characterized in that the transfer strip (26) is first produced at a smaller spacing (A1) to the relevant web edge (32) and the spacing to the web edge (32) is subsequently enlarged by an appropriate movement of the separation elements (20, 22) in a transverse direction.

9. A method in accordance with claim 8, characterized in that the maximum spacing (A2) of the transfer strip (26) to the relevant web edge (32) is smaller than its spacing to the opposite web edge (34).

10. A method in accordance with claim 8 or 9, characterized in that the transfer strip (26) is accordingly positioned by a movement of the separation elements (20, 22) in a transverse direction with respect to at least one downstream machine section (16).

11. A method in accordance with claim 10, characterized in that the positioning of the transfer strip (26) takes place such that this is ultimately taken up in its whole width in the relevant downstream machine section (16).

12. A method in accordance with one of the preceding claims, characterized in that, for its transfer into at least one first machine section (14), the transfer strip (26) is first produced at a smaller spacing (A1) to the relevant web edge (32) and the spacing to the web edge (32) is subsequently enlarged for the transfer into at least one further machine section (16) by an appropriate movement of the separation elements (20, 22) in a transverse direction.

13. A method in accordance with one of the preceding claims, characterized in that the separation elements (20, 22) are appropriately moved in a transverse direction for the setting of the respectively desired width of the transfer strip (26).

14. A method in accordance with one of the preceding claims, characterized in that in each case a separation element working in a non-contact manner, in particular a water jet or laser beam separation element, or a mechanical cutting element, in particular a knife or circular knife element, is used as the separation element (20, 22).

15. A method in accordance with one of the preceding claims, characterized in that separation elements (20, 22) working in a non-contact manner are used; and in that the separating procedure takes place on the last drying cylinder (44) of a paper machine (18).

16. A method in accordance with one of the preceding claims, characterized in that mechanically working cutting elements are used as the separation elements (20, 22); and in that the separating procedure takes place in a non-supported run of the material web (10).

17. A method in accordance with one of the preceding claims, characterized in that the material web (10) is guided into a pulper (30) or waste container prior to the start of the separating procedure.

18. A method in accordance with one of the preceding claims, characterized in that both separation elements (20, 22) are applied within the material web (10) and the separation is begun accordingly within this material web (10).

19. A method in accordance with one of the claims 1 to 17, characterized in that at least one separation element (20, 22) is already activated outside the material web.

20. A method in accordance with one of the preceding claims, characterized in that the edge strip (24) and the remaining web (28) are led into a pulper (30) or waste container up to the widening.

21. A method in accordance with one of the preceding claims, characterized in that the transfer strip (26) is transferred to the downstream machine section (14) via at least one auxiliary transfer device, in particular a rope guide, a transfer belt, an air guide device and/or the like.

22. A method in accordance with one of the preceding claims, characterized in that the edge strip (24) is produced with a width which is in a range from around 50 mm to around 300 mm and preferably in a range from around 50 mm to around 250 mm.

23. A method in accordance with one of the preceding claims, characterized in that the transfer strip (26) is produced with a width which is in a region from around 50 mm to around 400 mm and preferably in a range from around 50 mm to around 200 mm.

24. A method in accordance with one of the preceding claims, characterized in that the transfer strip (26) is produced such that its edge (36) disposed most closely to the relevant web edge (32) has a

spacing (B1, B2) to the support edge (40) or the rope guides respectively which is larger than around 150 mm.

25. A method in accordance with one of the preceding claims, characterized in that the transfer strip (26) is produced such that its edge (36) disposed most closely to the relevant web edge (32) has a spacing (B1, B2) to the support edge (40) or the rope guides respectively which is in a region from around 150 mm to around 1,000 mm.

26. An apparatus for the transfer of a flexible material web (10), in particular a paper or cardboard web, from an upstream section (12) to at least one downstream section (14, 16) of a machine (18), in particular a paper machine, serving for the manufacture and/or treatment of the material web (10), in which the material web (10) can be split by means of two separation elements (20, 22) into an edge strip (24) extending in the web running direction (L), an adjoining transfer strip (26) and the remaining web (28) adjoining this transfer strip (26), in particular for the carrying out of the method in accordance with one of the preceding claims, characterized in that means are provided to deflect the edge strip (24) to the side of and away from the transfer strip (26) and to simultaneously tauten it.

27. An apparatus in accordance with claim 26, characterized in that at least one air jet production device is provided for the deflection of the edge strip (24).

28. An apparatus in accordance with claim 26 or claim 27, characterized in that a guide apparatus is provided for the deflection of the edge strip (24).

29. An apparatus in accordance with claim 28, characterized in that the guide apparatus has a guide surface which, considered in the running direction (L) of the edge strip (24), merges from a flat plane at the start in the region of the reception of the edge strip (24) into a curved, outwardly extending contact surface for the edge strip (24).

30. An apparatus in accordance with claim 28, characterized in that the guide apparatus comprises a plurality of, in particular three, at least essentially planar guide panels provided with side walls and arranged in cascade form.

31. An apparatus in accordance with one of the preceding claims, characterized in that the separation elements (20, 22) which can preferably be moved transversely to the web running direction (L) can be controlled via an electronic control (48).

32. An apparatus in accordance with one of the preceding claims, characterized in that the separation element (20) disposed most closely to the relevant web edge (32) can be activated first to produce the edge strip (24) and subsequently – with the edge strip (30) already tautened and deflected – the other separation element (22) can be activated to produce the transfer strip (26).

33. An apparatus in accordance with one of the preceding claims, characterized in that after a transfer of the transfer strip (26) to at least one downstream machine section (14, 16), the separation element (22) further removed from the relevant web edge (32) can be moved to the opposite web edge (34) to separate the remaining web (28).

34. An apparatus in accordance with one of the preceding claims, characterized in that after a transfer of the transfer strip (26) to at least one downstream machine section (14, 16), the separation element (20) disposed most closely to the relevant web edge (32) can be moved to the relevant web edge (32) to separate the edge strip (24).

35. An apparatus in accordance with one of the preceding claims, characterized in that the transfer strip (26) is produced in the region of the relevant web edge (32) at least at the start of the transfer procedure.

36. An apparatus in accordance with one of the preceding claims, characterized in that the transfer strip (26) is first produced at a smaller spacing (A1) to the relevant web edge (32) and in that the spacing to the web edge (32) is subsequently enlarged by an appropriate movement of the separation elements (20, 22) in the transverse direction.

37. An apparatus in accordance with claim 36, characterized in that the maximum spacing (A2) of the transfer strip (26) to the relevant web edge (32) is smaller than its spacing to the opposite web edge (34).

38. An apparatus in accordance with claim 36 or claim 37, characterized in that the transfer strip (26) can be accordingly positioned with respect to at least one (16) downstream machine section (16) by a movement of the separation elements (20, 22) in the transverse direction.

39. An apparatus in accordance with claim 38, characterized in that the transfer strip (26) can be positioned such that this is ultimately taken up in its whole width in the relevant downstream machine section (16).

40. An apparatus in accordance with one of the preceding claims, characterized in that, for its transfer into at least a first machine section (14), the transfer strip (26) is first produced at a smaller spacing (A1) to the relevant web edge (32) and the spacing to the web edge (32) is subsequently enlarged, for the transfer into at least one further machine section (16), by an appropriate movement of the separation elements (20, 22) in a transverse direction.

41. An apparatus in accordance with one of the preceding claims, characterized in that the respectively desired width of the transfer strip (26) can be set by an appropriate movement of the separation elements (20, 22) in a transverse direction.

42. An apparatus in accordance with one of the preceding claims, characterized in that in each case a separation element working in a non-contact manner, in particular a water jet or laser beam separation element, or a mechanical cutting element, in particular a knife or circular knife element, is provided as the separation element (20, 22).

43. An apparatus in accordance with one of the preceding claims, characterized in that separation elements (20, 22) working in a non-contact manner, are provided; and in that the separating procedure takes place on the last drying cylinder (44) of a paper machine (18).

44. An apparatus in accordance with one of the preceding claims, characterized in that mechanically working cutting elements are provided as the separation elements (20, 22); and in that the separating procedure takes place in a non supported run of the material web (10).

45. An apparatus in accordance with one of the preceding claims, characterized in that both separation elements (20, 22) can be applied within the material web (10) in order to accordingly start the separation within this material web (10).

46. An apparatus in accordance with one of the claims 26 to 44, characterized in that at least one separation element (20, 22) can already be activated outside the material web (10).

47. An apparatus in accordance with one of the preceding claims, characterized in that, for the transfer of the transfer strip (26) to the downstream machine section (14), at least one auxiliary transfer device, in particular a rope guide, a transfer belt, an air guide device and/or the like, is provided.

48. An apparatus in accordance with one of the preceding claims, characterized in that the separation elements (20, 22) can be controlled such that the edge strip (24) is produced with a width which is in a range from around 50 mm to around 300 mm and preferably in a range from around 50 mm to around 250 mm.

49. An apparatus in accordance with one of the preceding claims, characterized in that the separation elements (20, 22) can be controlled such that the transfer strip (26) is produced with a width which is in a range from around 50 mm to around 400 mm and preferably in a range from around 50 mm to around 200 mm.

50. An apparatus in accordance with one of the preceding claims, characterized in that the separation elements (20, 22) can be controlled such that the edge (36) of the produced transfer strip (26) disposed most closely to the relevant web edge (32) has a spacing (B1, B2) to the support edge (40) or the rope guides respectively which is larger than around 150 mm.

51. An apparatus in accordance with one of the preceding claims, characterized in that the separation elements (20, 22) can be controlled such that the edge (36) of the produced transfer strip (26)

disposed most closely to the relevant web edge (32) has a spacing (B1, B2) to the support edge (40) or the rope guides respectively which is in a region from around 150 mm to around 1,000 mm.

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Abstract

In a method and an apparatus for the transfer of a flexible material web, in particular a paper or cardboard web, from an upstream section to at least one downstream section of a machine, in particular a paper machine, serving for the manufacture and/or treatment of the material web, the material web is split by means of two separation elements into an edge strip extending in the web running direction, an adjoining transfer strip and the remaining web adjoining this transfer strip, with the edge strip being deflected to the side of and away from the transfer strip and simultaneously being tautened.

Fig.1

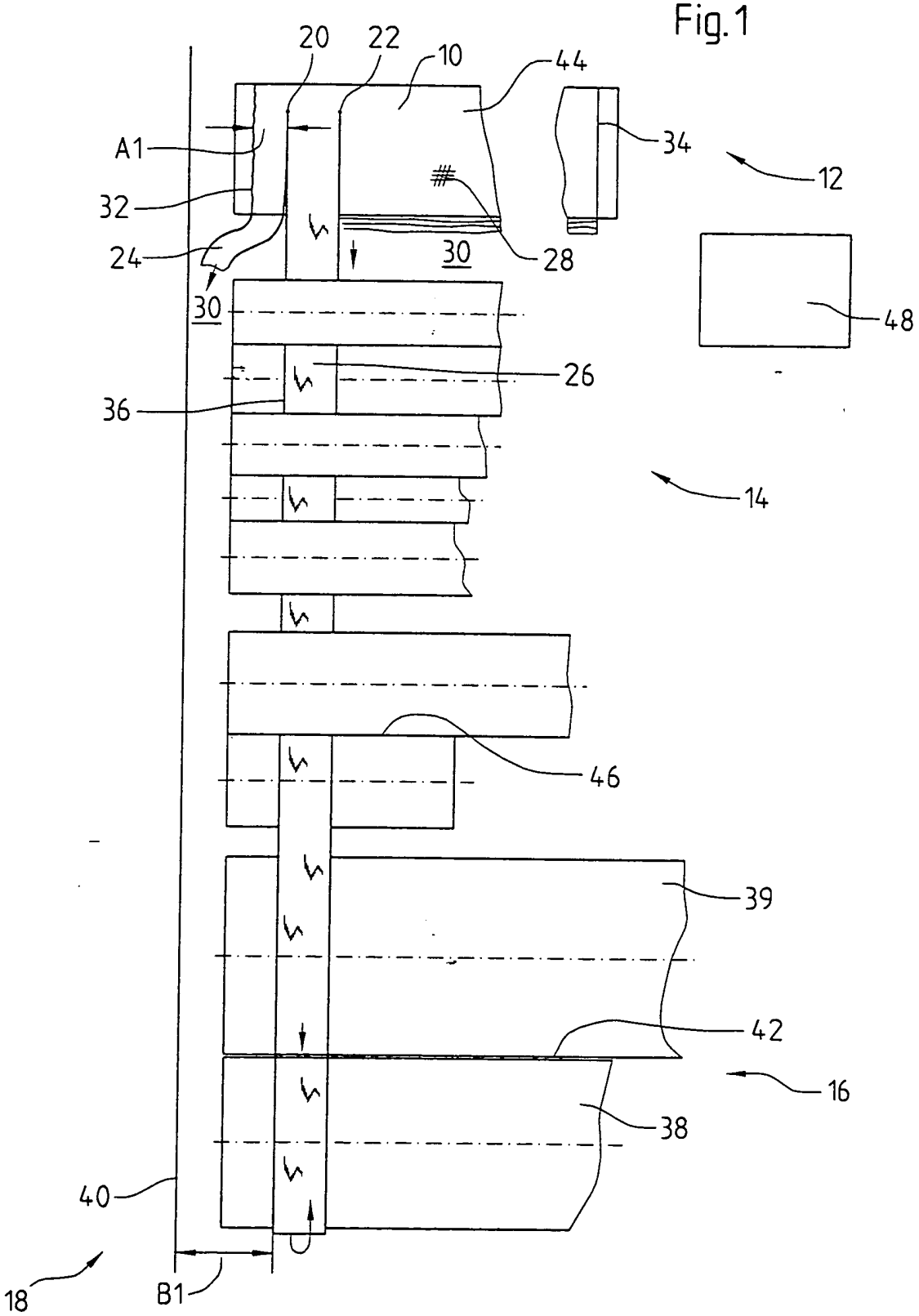

Fig. 2